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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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John S. Beulick Armstrong Teasdale LLP Suite 2600 One Metropolitan Square St. Louis, MO 63102				
EXAMINER				
PERRIN, JOSEPH L				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/632,741

Applicant(s)

ACKERMAN ET AL.

Examiner

Joseph L. Perrin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

1. Claim 18 has been amended to remove claim language effectively broadening the scope of the claim. Claim 20 has been amended to add and remove claim language such that the claimed washing system is no longer claimed in combination with a gas turbine engine, i.e. amending the ring manifold from "mounted" to "mountable" within said gas turbine engine, thereby broadening the scope of the claim and making the recitation of "for a gas turbine engine" the intended use of the claimed washing system. Thus, claim 20, as amended, positively recites a washing system which may be "mountable" to a gas turbine engine.

Response to Arguments

2. Applicant's arguments filed 06 July 2009 have been fully considered but they are not persuasive. In light of the amendment and significant change of scope of the claims, independent claims 18 and 20 will be separately addressed.

3. At the outset, the Examiner would like to comment on the Applicant's mischaracterization of the Examiner's position. On page 4 of the instant response, the Applicant alleges that "Beck and McDermott teach away from positioning the nozzle assembly within the gas turbine engine and upstream of the compressor". However, simply because the Applicant says that the prior art "teaches away" does not necessarily make it so. Applicant has failed to

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demonstrate how the combination renders the prior art unsatisfactory for its intended purpose or change the principle operation of the references to adequately show a teaching away (see MPEP 2145). Furthermore, "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed...." *In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004). Simply stated, teaching a way is not a teaching away. Moreover, one having ordinary skill in the art would have at once envisaged the possibility of applying the cleaning fluid in either the intake or exhaust of the gas turbine engine given the fact that there are only two possibilities, and the fact that the prior art references clearly evidence that spraying cleaning fluid in both the intake and exhaust is old and well known and produces the predictable result of cleaning the gas turbine engine. As such, the Examiner finds no teaching away but rather simply teaching a way as described in each reference. Thus, given there are only two possibilities in directing the spray into the engine which are both old and well known as evidenced by the prior art of record, the Examiner finds neither positioning as being a patentable modification as both would produce a predictable result. Applicant is silent with respect to any showing or evidence to the contrary, and no such distinction is apparent on this record. Further, regarding the nozzles being located "within" the gas turbine engine, the Examiner finds nothing in this limitation which results in a patentable modification as the prior art of record teaches that it is known to provide the nozzles at or within the gas turbine engine. Clearly, the positioning of

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the nozzles would produce the same predictable result and is considered *prima facie* obvious absent evidence to the contrary. Applicant is reminded that it is well settled that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

The Applicant further points to the Examiner's position in that "whether or not BECK teaches cleaning upstream or downstream of the compressor is irrelevant to the Examiner's combination" and alleges that "this interpretation is flawed" citing MPEP 2141.05(VI). The Examiner emphatically disagrees and submits that contrary to the Applicant's mischaracterization of the Examiner's position at no time did the Examiner "simply ignore, as being irrelevant", the teachings of BECK. Applicant attempts to support their position by comparing the caselaw cited in MPEP 2141.02(VI), a reference teaching rapid stretching of conventional plastic polypropylene, with the cleaning apparatus of the claimed invention. However, there is not a relevant comparison between the two whatsoever. Rather, the Applicant's comparison in this regard is analogous to the idiomatic "apples and oranges". Contrary to the Applicant's allegation, the Examiner stresses that at no time were the teachings of BECK "simply ignored". Rather, the Applicant's reliance on portions of the secondary reference of BECK, which in no way were relied upon by the Examiner in the rejection and/or in the combination, as somehow teaching away that BECK provides express teachings that it is well known that gas turbine engines have a compressor, was completely irrelevant to the rejection and the combination of limitations relied upon in the cited art forming the rejection. Simply stated, the Examiner's position is not that

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the teachings of BECK are "irrelevant" but rather that the Applicant's reliance on portions of BECK not relied upon in the rejection are not relevant to the instant rejection. Regardless of this fact, there is nothing in BECK that teaches away from the combination and use of BECK as a secondary reference for teaching that it is known that gas turbine engines include a compressor or that the nozzle configuration is known. Accordingly, the Examiner maintains that the portions of the secondary reference not relied upon by the Examiner in the rejection do not teach away from the combination as applied in the rejection. The Examiner further points out that in response to the Applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Thus, the combination of the teaching in BECK that a gas turbine includes a compressor with the gas turbine cleaning system in the primary reference of BARTOS renders the instantly claimed invention unpatentable.

Regarding claim 20, the Applicant's argument is unconvincing because the features upon which applicant relies (i.e., a gas turbine engine) are not positively recited in the rejected claim(s) as amended. The Examiner notes that the Applicant's amendment of the claimed washing system being "mountable" to a gas turbine engine renders the recitation of the gas turbine engine as intended use (see the previous rejections on record in which the Applicant was put on notice that the gas turbine engine was not positively recited in combination with

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the washing system). It is fundamental that an apparatus claim defines the structure of the invention and not how the structure is used in a process, or what materials the structure houses in carrying out the process. *Ex parte Masham*, 2 USPQ2d 1647, 1648 (BPAI 1987). See also *In re Yanush*, 477 F.2d 958, 959, 177 USPQ 705,706 (CCPA 1973); *In re Finsterwalder*, 436 F.2d 1028, 1032, 168 USPQ 530, 534 (CCPA 1971); *In re Casey*, 370 F.2d 576, 580, 152 USPQ 235,238 (CCPA 1967). As long as the apparatus of BARTOS is capable of mounting within a gas turbine engine, the prior art apparatus meet the requirements of the claimed feature. Applicant has not established on this record any structural distinction between apparatus within the scope of the rejected claims and the apparatus fairly described by BARTOS, and no such structural distinction is apparent.

In summary, given the extensive case history (4 continuations and an appeal, Examiner affirmed) the Examiner still finds no patentably distinguishing structure for the claimed washing apparatus, particularly given the state of the art. Moreover, the Applicant has been silent with respect to any evidence or showing of unexpected results or showing of unpredictability. Manifestly, the prior art of record teaches and/or reasonably suggests each and every structural limitation as claimed, either expressly or through the principles of inherency as evidenced on record. As such, a *prima facie* case of obviousness exists and the burden shifts to the Applicant until Applicant can demonstrate how the claimed apparatus serves to *patentably* distinguish over the prior art of record. Generally, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount

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to a general allegation that the claims define a patentable invention without *specifically* pointing out *how* the language of the claims *patentably distinguishes* them from the references. Accordingly, the Applicant should clarify precisely how and why the claims serve to patentably distinguish over the prior art of record as no such distinction is readily apparent on this record.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over BARTOS in view of BECK or U.S. Patent No. 5,273,395 to MCDERMOTT.

Regarding claim 18, BARTOS discloses the claimed combination of a gas turbine engine (inherently or implicitly comprising a compressor, such being an old and well known component of a gas turbine engine) and a washing system for a gas turbine engine (10) comprising a pump (14) to pump liquids through a ring manifold (96) having plural circumferentially-spaced spray nozzles (substantially co-planar with said ring) operable (i.e. via a controller and/or valves) to discharge a liquid radially inward (i.e. horizontally) into the turbine engine to be treated, and a controller (26) configured to inject plural liquids from fluid reservoirs (18/20/22/24) (see Figures 1, 2, 6, and relative associated text). Re claim 19, BARTOS further discloses the use of a starter motor to rotate the engine while spraying a treatment liquid (col. 1, lines 27-28 & claim 1).

Re claims 20 & 22, BARTOS discloses the claimed structure of a washing system (10) for a gas turbine engine including a ring manifold (96) having plural circumferentially-spaced spray nozzles operable (i.e. via a controller and/or valves) fully capable of being mounted to the gas turbine engine to discharge a liquid radially inward (i.e. horizontally) into the turbine engine to be treated, and a controller (26) configured to inject plural liquids from fluid reservoirs (18/20/22/24) (see Figures 1, 2, 6, and relative associated text). It is noted that the intended use of the gas turbine engine with compressor and liquid are afforded patentable weight and do not provide a structural limitation to the claimed washing apparatus (the Examiner notes that the Applicant's amendment effectively positively reciting the gas turbine engine with the claimed washing machine has resulted in the aforementioned intended use). The Examiner notes that for claim 22, the action of the liquid (i.e. one that "coats") is intended use and does not serve to structurally distinguish as generally all liquids are capable of coating to some degree. Re claim 21, BARTOS discloses controlling the sequence of the liquid treatments which effectively allows the nozzles to be "configured" to performed the recited intended use (col. 1, lines 39-41 & 59-62). Re claim 22, BARTOS further discloses the use of a starter motor to rotate the engine while spraying a treatment liquid (col. 1, lines 27-28 & claim 1). Re claim 23, BARTOS further discloses the use of a starter motor to rotate the engine while spraying a treatment liquid (col. 1, lines 27-28 & claim 1).

BARTOS discloses using the claimed washing system in combination with a gas turbine engine and the position is taken that one having ordinary skill in the

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art would reasonably interpret the disclosed gas turbine engine as a conventional gas turbine engine including a compressor, either inherently or implicitly, particularly since it is common knowledge that compressors are part of a conventional gas turbine engine and necessary for operation. However, even if assuming *arguendo*, one were to construe the gas turbine compressor of BARTOS as not having a compressor, both BECK and MCDERMOTT are directed to cleaning a gas turbine engine and evidence that conventional gas turbines comprise a compressor.

Because the gas turbine engines of BARTOS, BECK and MCDERMOTT are structural equivalents readily recognized by one having ordinary skill in the art, the position is taken that simply substituting the known gas turbine engine of BARTOS for the structural equivalent gas turbine engines of BECK or MCDERMOTT in the combination of a gas turbine engine and ring manifold cleaning system would have yielded the same predictable result of cleaning/treating a gas turbine engine with compressor using a spray ring manifold.

Regarding the nozzle configuration in claims 18 and 23, BARTOS discloses a ring manifold with substantially co-planar nozzles configured to spray cleaning fluid into the gas turbine inlet but does not expressly disclose the nozzles oriented to discharge the cleaning fluid radially inward and substantially co-planar with said nozzles. Both BECK and MCDERMOTT teach that it is known to provide a spray ring manifold with nozzles angled radially inward (see BECK and MCDERMOTT cited above) and MCDERMOTT expressly discloses

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spraying radially inward to create a more uniform intake of cleaning fluid into the engine during a cleaning operation (see entire document of MCDERMOTT, particularly the abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the nozzle angle of BARTOS radially inwardly for the purpose of creating a more uniform intake of cleaning fluid into the engine during a cleaning operation, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. It is noted that the record is silent with respect to any unexpected or unpredictable results of the radial inward angle, and no such results are apparent on this record.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
7. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

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the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 8:00-4:30.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph L. Perrin/
Joseph L. Perrin
Primary Examiner
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JLP